Supporting Information for

Degradation of phenol by air and polyoxometalate nanofibers using a continuous mode

Jian Xu[a], Siqi Yan[a], Jianxin Li[a], Shengtian Wang[a], Xiaohong Wang[a,*], Mingxin Huo[b,*]

Figure legends

Fig. S1 XRD of $K_5PMo_{10}V_2O_{40}$/PAN nanofibers.

Fig. S2 Evolution of hydroquinone, catechol, p-benzoquinone, obenzoquinone, and maleric acid in the solution during degradation of phenol with $K_5PMo_{10}V_2O_{40}$/PAN (0.2 g) in 100mL of 0.72 mM phenol solution with the air flowing rate 0.04 m^3/h for 120 min under slurry type.

Fig. S3 (1) Effect of phenol' concentrations on degradation of phenol((Reaction conditions: 100 mL of phenol, 0.2 g of $K_5PMo_{10}V_2O_{40}$/PAN, air flowing rate 0.04 m^3/h, 25ºC, and 120 min)
(2) The influence of temperature on degradation of phenol (Reaction conditions: 100 mL, 0.72 mM of phenol, 0.2 g of $K_5PMo_{10}V_2O_{40}$/PAN, air flowing rate 0.04 m^3/h, and 120 min)
(3) The amount of $K_5PMo_{10}V_2O_{40}$/PAN on degradation of phenol (Reaction conditions: 100 mL, 0.72 mM of phenol, air flowing rate 0.04 m^3/h, 25ºC, and 120 min)

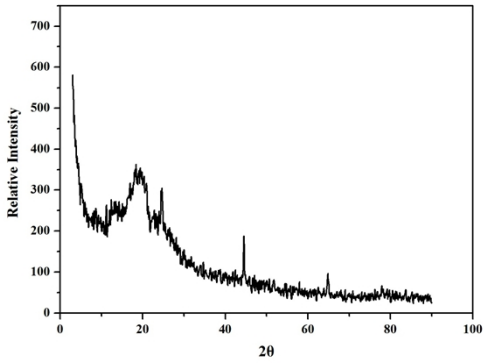

Fig. S1 XRD of $K_5PMo_{10}V_2O_{40}$/PAN nanofibers

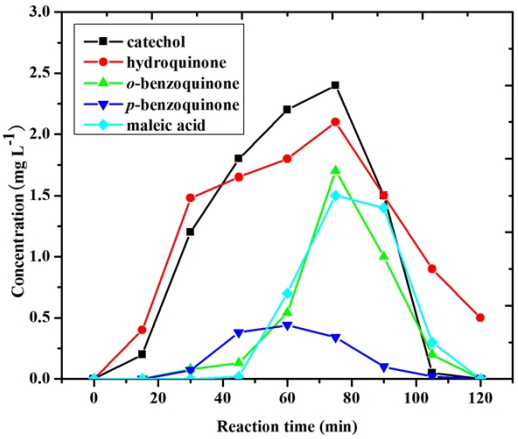

Fig. S2 Evolution of hydroquinone, catechol, p-benzoquinone, obenzoquinone, and maleric acid in the solution during degradation of phenol with $K_5PMo_{10}V_2O_{40}$/PAN (0.2 g) in 100mL of 0.72 mM phenol solution with the air flowing rate 0.04 m^3/h for 120 min under slurry type

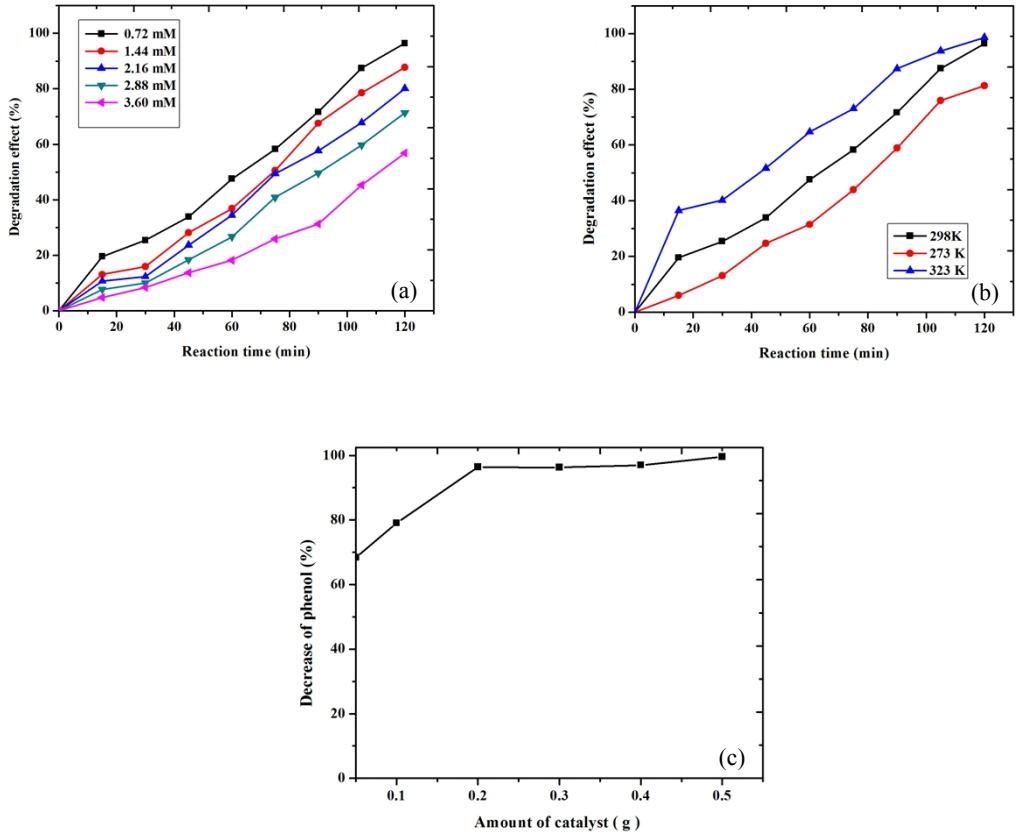

Fig. S3 (a) Effect of phenol' concentrations on degradation of phenol((Reaction conditions: 100 mL of phenol, 0.2 g of $K_5PMo_{10}V_2O_{40}$/PAN, air flowing rate 0.04 m^3/h, 25ºC, and 120 min) (b) The influence of temperature on degradation of phenol (Reaction conditions: 100 mL, 0.72 mM of phenol, 0.2 g of $K_5PMo_{10}V_2O_{40}$/PAN, air flowing rate 0.04 m^3/h, and 120 min) (c) The amount of $K_5PMo_{10}V_2O_{40}$/PAN on degradation of phenol (Reaction conditions: 100 mL, 0.72 mM of phenol, air flowing rate 0.04 m^3/h, 25ºC, and 120 min)